

Amendments to the Claims:

Please cancel claims 11-20 and 41-53, which were previously withdrawn.
Please cancel claims 3 and 22; add new claim 54; and amend claims 1, 4, 6, 21, 23 and 31 as follows:

1 1. (currently amended) An electronic pressure sensitive transducer
2 producing an electrical signal indicative of applied pressure, the transducer
3 comprising:
4 a printed circuit board ~~accepting a plurality of electronic elements for~~
5 ~~processing the transducer electrical signal;~~
6 a plurality of conductive traces formed on the printed circuit board to
7 define a contact area;
8 a flexible substrate having an inner surface positioned over the contact
9 area;
10 an adhesive spacer and a pedestal substantially surrounding the contact
11 area, the adhesive spacer and the pedestal attaching the flexible substrate to the
12 printed circuit board, the pedestal comprising conductive traces on the printed circuit
13 board; and
14 at least one resistive layer deposited on the flexible substrate inner
15 surface, the resistive layer contacting at least two of the traces in response to pressure
16 applied to the flexible substrate to produce the electrical signal indicative of applied
17 pressure.

1 2. (original) An electronic pressure sensitive transducer as in claim
2 1 wherein at least one resistive layer comprises resistive ink.

1 3. (canceled).

1 4. (currently amended) An electronic pressure sensitive transducer
2 as in claim 1 ~~claim 3~~ wherein the pedestal ~~comprises~~ conductive traces are covered
3 with a non-conductive material.

1 5. (original) An electronic pressure sensitive transducer as in claim
2 1 wherein the plurality of conductive traces comprise:
3 a plurality of sets of traces, each set of traces interconnected within a
4 zone of the contact area; and
5 an interconnected set of common traces extending into each zone.

1 6. (currently amended) An electronic pressure sensitive transducer
2 as in claim 5 wherein at least one interconnected set of traces is connected to ~~the~~
3 electronic elements soldered to the printed circuit board for processing the transducer
4 electrical signal via a through-hole in the printed circuit board.

1 7. (original) An electronic pressure sensitive transducer as in claim
2 6 wherein the through-hole is within the contact area.

1 8. (original) An electronic pressure sensitive transducer as in claim
2 1 wherein conductive traces are arranged in interconnected sets, with at least two sets
3 of traces interdigitated.

1 9. (original) An electronic pressure sensitive transducer as in claim
2 1 wherein conductive traces comprise copper traces covered with an oxidation
3 preventing conductive material.

1 10. (original) An electronic pressure sensitive transducer as in claim
2 1 wherein conductive traces comprise screen printed carbon ink.

1 11.-20. (canceled).

1 21. (currently amended) A printed circuit board electronic pressure
2 sensitive transducer assembly comprising:
3 a printed circuit board manufactured to accept ~~accepting~~ a plurality of
4 electronic elements for processing pressure transducer electrical signals;
5 a plurality of conductive traces formed on the printed circuit board to
6 define a contact area;
7 a flexible substrate having an inner surface positioned over the contact
8 area;
9 an adhesive spacer and a pedestal substantially surrounding the contact
10 area, the adhesive spacer and the pedestal attaching the flexible substrate to the
11 printed circuit board, the pedestal formed of conductive material on the printed circuit
12 board; and
13 at least one resistive layer comprising a resistive ink deposited on the
14 flexible substrate inner surface, the resistive layer contacting at least two of the
15 contact area conductive traces in response to pressure applied to the
16 flexible substrate.

1 22. (canceled).

1 23. (currently amended) A printed circuit board electronic pressure
2 sensitive transducer assembly as in claim 21 ~~claim 22~~ wherein the pedestal ~~comprises~~
3 a conductive material is coated with a non-conductive material, ~~the conductive~~
4 ~~material formed on the printed circuit board.~~

1 24. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 21 wherein the plurality of conductive traces
3 comprise:
4 a plurality of sets of traces, each set of traces interconnected within a
5 zone of the contact area; and

6 an interconnected set of common traces extending into each zone.

1 25. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 24 wherein at least one interconnected set of traces
3 is connected to the electronic elements for processing the transducer electrical signal
4 via a through-hole in the printed circuit board.

1 26. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 25 wherein the through-hole is within the contact
3 area.

1 27. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 21 wherein conductive traces are arranged in
3 interconnected sets, with at least two sets of traces interdigitated.

1 28. (original) An electronic pressure sensitive transducer as in claim
2 21 wherein the adhesive spacer comprises adhesive ink.

1 29. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 21 wherein conductive traces comprise copper traces
3 covered with an oxidation preventing conductive material.

1 30. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 21 wherein conductive traces comprise screen printed
3 carbon ink.

1 31. (currently amended) A printed circuit board electronic pressure
2 sensitive transducer assembly comprising:

3 a printed circuit board including ~~accepting~~ a plurality of electronic
4 elements for processing pressure transducer electrical signals;

5 a plurality of conductive traces formed on the printed circuit board to
6 define a contact area;
7 a pedestal substantially surrounding the contact area, the pedestal
8 forming a flat area higher than the conductive traces, the pedestal comprising the
9 same conductive material used to form the conductive traces;
10 a flexible substrate having an inner surface positioned over the contact
11 area;
12 an adhesive spacer substantially surrounding the contact area, the
13 adhesive spacer attaching the flexible substrate to the pedestal; and
14 at least one resistive layer deposited on the flexible substrate inner
15 surface, the resistive layer contacting at least two of the contact area conductive
16 traces in response to pressure applied to the flexible substrate.

1 32. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 31 wherein the pedestal is formed by depositing a
3 non-conductive layer over a conductive layer, the conductive layer formed on the
4 printed circuit board.

1 33. (original) An electronic pressure sensitive transducer as in claim
2 31 wherein at least one resistive layer comprises resistive ink.

1 34. (original) An electronic pressure sensitive transducer as in claim
2 31 wherein the adhesive spacer comprises adhesive ink.

1 35. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 31 wherein the plurality of conductive traces
3 comprise:

4 a plurality of sets of traces, each set of traces interconnected within a
5 zone of the contact area; and

6 an interconnected set of common traces extending into each zone.

1 36. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 35 wherein at least one interconnected set of traces
3 is connected to the electronic elements for processing the transducer electrical signal
4 via a through-hole in the printed circuit board.

1 37. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 36 wherein the through-hole is within the contact
3 area.

1 38. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 31 wherein conductive traces are arranged in
3 interconnected sets, with at least two sets of traces interdigitated.

1 39. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 31 wherein conductive traces comprise copper traces
3 coated with an oxidation preventing conductive material.

1 40. (original) A printed circuit board electronic pressure sensitive
2 transducer assembly as in claim 31 wherein conductive traces comprise screen printed
3 carbon ink.

1 41.-53. (canceled)

1 54. (new) An electronic pressure sensitive transducer as in claim 1
2 further comprising electronic components soldered to the printed circuit board, the
3 electrical components receiving electrical signals from the plurality of conductive
4 traces defining the contact area.